

## ABSTRACT

A charge pump DC/DC converter having an improved the ripple characteristic in its output voltage and make it possible to adjust the boosting rate in a stepwise manner. In phase I, two flying capacitors  $C_a$ ,  $C_b$  are connected in series between voltage input terminal 12 and voltage output terminal 14. In this connection state, flying capacitor  $C_a$  is charged by the current supplied from DC power supply 10, while flying capacitor  $C_b$  discharges to the load side. In phase II, flying capacitor  $C_a$  is connected between voltage input terminal 12 and voltage output terminal 14, while flying capacitor  $C_b$  is connected between voltage input terminal 12 and the ground potential. In this connection state, flying capacitor  $C_a$  discharges to the load side, while flying capacitor  $C_b$  is charged by the current supplied from DC power supply 10.